

DP-308753

VEHICLE SEAT OCCUPANT STATUS
CLASSIFICATION USING MULTIPLE SENSORS

Abstract of the Disclosure

A multiple sensor, vehicle seat occupant status determination system uses dynamic variations in occupant responsive sensor output due to accelerations of the vehicle seat to discriminate via a statistical method between sensors that are failed and those that are operating correctly and eliminates the contribution of signals detected as not valid from the status determination. If and only if the maximum and minimum sampled signal values of at least one of the received signals span upper and lower control reference values derived from the sampled signal values, a variance value for each of the signals is derived; and one or both of the greatest two or the smallest two variance values are checked against a relative size factor to detect an outlier signal value. If an outlier signal value is detected more than a predetermined number of consecutive times, the status classification is performed without signal values from the outlier sensor.